Tobacco Use

CIGARETTE SMOKING

Definition: Respondents who report having smoked at least 100 cigarettes in their lifetime and now smoke every day or smoke some days.

Prevalence of Current Cigarette Smoking

- South Dakota 19.8%
- o Nationwide median 19.8%

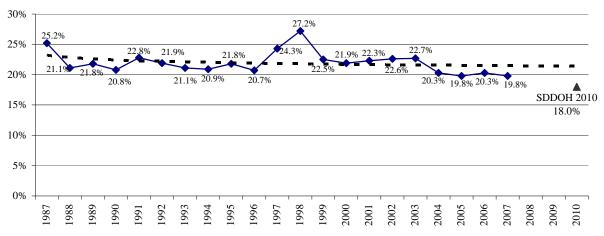
South Dakota Department of Health 2010 Initiative

Reduce the percent of adults who smoke cigarettes to 18 percent.

Trend Analysis

This question was first asked in 1987 and hit its peak in 1998 with 27.2 percent of respondents stating they currently smoke. In 2005 and 2007 the percent of respondents who stated they currently smoke reached all time lows of 19.8 percent. South Dakota has not yet met the *South Dakota Department of Health 2010 Initiative* goal of 18 percent.

Figure 13
Percent of Respondents Who Currently Smoke Cigarettes, 1987-2007



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-2007

Demographics

Gender There is no significant gender difference shown by the available data for cigarette smoking.

Age The prevalence of cigarette smoking generally decreases as age increases. This includes significant decreases when the 65-74, and 75 and older age groups are reached.

Race American Indians demonstrate a significantly higher prevalence of cigarette smoking than whites.

Region The American Indian counties region exhibits a significantly higher prevalence of

cigarette smoking than the other four regions.

Household Income

Cigarette smoking decreases as household income increases. This includes a significant decrease as the \$75,000 or more group is reached.

Education

The prevalence of cigarette smoking generally decreases as education increases. This includes a significant decrease as the college graduate level is reached. However, it should be noted that the eighth grade or less education level shows a

very low prevalence of cigarette smoking.

Employment Status

Those who are unemployed or unable to work exhibit a very high prevalence of cigarette smoking, while those who are self-employed or retired show a very low prevalence.

Marital Status

Those who are divorced or separated demonstrate a very high prevalence of cigarette smoking, while those who are married or widowed show a very low prevalence.

,	Table 16 Respondents Who Currently Smoke Cigarettes, 2007									
	l	Total	no curren	tty Silio	Male)	Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
Total	6,858	19.8	(18.4-21.3)	2,809	20.1	(18.0-22.3)	4,049	19.6	(17.7-21.6)	
Age										
18-24	239	29.3	(22.8-36.8)	123	28.2	(19.8-38.5)	116	30.4	(21.1-41.8)	
25-34	763	22.0	(18.7-25.7)	304	23.9	(18.7-30.0)	459	20.1	(16.4-24.4)	
35-44	925	20.6	(17.7-24.0)	419	18.8	(14.7-23.8)	506	22.5	(18.4-27.3)	
45-54	1,414	22.6	(20.2-25.3)	598	23.8	(20.0-28.0)	816	21.5	(18.4-25.0)	
55-64	1,341	18.3	(16.0-20.8)	570	17.7	(14.4-21.6)	771	18.9	(15.9-22.4)	
65-74	1,058	11.0	(8.9-13.4)	420	8.9	(6.3-12.3)	638	12.8	(9.9-16.4)	
75+	1,052	5.6	(4.1-7.7)	363	6.6	(3.8-11.2)	689	5.0	(3.4-7.1)	
Race										
White	6,012	17.7	(16.2-19.2)	2,465	17.8	(15.8-20.0)	3,547	17.5	(15.6-19.6)	
American Indian	592	48.8	(42.2-55.4)	232	49.0	(38.7-59.3)	360	48.6	(40.6-56.7)	
Region										
Southeast	1,538	17.7	(15.2-20.6)	643	19.0	(15.4-23.2)	895	16.4	(13.0-20.5)	
Northeast	1,492	19.3	(16.6-22.3)	630	20.0	(16.0-24.8)	862	18.5	(15.2-22.3)	
Central	1,429	18.1	(15.3-21.3)	577	18.1	(13.8-23.3)	852	18.1	(14.7-22.2)	
West	1,527	20.8	(18.2-23.7)	601	19.6	(15.9-23.9)	926	21.8	(18.2-25.9)	
American Indian Counties	872	38.8	(33.9-43.9)	358	35.1	(28.0-43.0)	514	42.5	(36.1-49.1)	
Household Income										
Less than \$10,000	311	43.4	(32.1-55.4)	103	36.2	(24.8-49.4)	208	47.9	(32.0-64.3)	
\$10,000-\$14,999	367	30.8	(24.1-38.4)	122	34.3	(23.3-47.3)	245	28.8	(20.9-38.2)	
\$15,000-\$19,999	500	29.3	(23.2-36.3)	178	18.2	(12.0-26.5)	322	37.5	(28.9-46.9)	
\$20,000-\$24,999	664	26.0	(20.8-31.9)	232	30.0	(21.6-40.0)	432	23.2	(17.2-30.5)	
\$25,000-\$34,999	882	22.9	(18.8-27.5)	387	21.0	(15.8-27.4)	495	25.0	(19.2-31.8)	
\$35,000-\$49,999	1,159	21.5	(18.5-24.9)	528	23.0	(18.7-28.0)	631	19.9	(16.0-24.6)	
\$50,000-\$74,999	1,066	17.0	(14.2-20.3)	485	18.9	(14.5-24.3)	581	15.0	(11.9-18.8)	
\$75,000+	1,035	9.7	(7.5-12.5)	527	9.3	(6.4-13.4)	508	10.4	(7.4-14.4)	
Education										
8th Grade or Less	263	12.0	(8.0-17.7)	140	10.7	(5.9-18.5)	123	14.4	(8.2-24.1)	
Some High School	381	36.1	(28.4-44.6)	148	34.1	(22.1-48.6)	233	38.1	(29.3-47.8)	
High School or G.E.D.	2,274	26.8	(24.0-29.9)	998	27.8	(24.0-32.0)	1,276	25.7	(21.7-30.3)	
Some Post-High School	1,922	21.2	(18.6-24.1)	681	22.2	(18.0-27.0)	1,241	20.5	(17.3-24.0)	
College Graduate	2,006	9.0	(7.6-10.7)	839	8.5	(6.4-11.2)	1,167	9.6	(7.7-11.9)	

Table 16 (continued) Respondents Who Currently Smoke Cigarettes, 2007											
		Total			Male			Fema	le		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI		
Employment Status											
Employed for Wages	3,196	21.4	(19.5-23.6)	1,284	22.4	(19.6-25.5)	1,912	20.5	(17.8-23.5)		
Self-employed	967	14.8	(11.9-18.2)	639	12.9	(9.8-16.9)	328	19.4	(13.9-26.3)		
Unemployed	162	41.6	(30.3-53.8)	*	*	*	*	*	*		
Homemaker	435	19.4	(14.4-25.6)	*	*	*	*	*	*		
Retired	1,659	10.2	(8.5-12.2)	629	10.1	(7.4-13.5)	1,030	10.3	(8.3-12.7)		
Unable to Work	329	34.7	(28.1-42.0)	135	31.8	(23.1-41.9)	194	37.4	(27.8-48.0)		
Marital Status											
Married/Unmarried Couple	4,116	17.1	(15.6-18.7)	1,815	16.5	(14.4-18.8)	2,301	17.6	(15.6-19.9)		
Divorced/Separated	937	36.8	(32.7-41.0)	400	37.5	(31.4-43.9)	537	36.2	(30.8-41.9)		
Widowed	1,051	13.5	(11.1-16.2)	177	16.6	(10.3-25.6)	874	12.8	(10.4-15.6)		
Never Married	737	24.7	(19.7-30.5)	412	25.0	(18.8-32.3)	325	24.2	(16.3-34.4)		

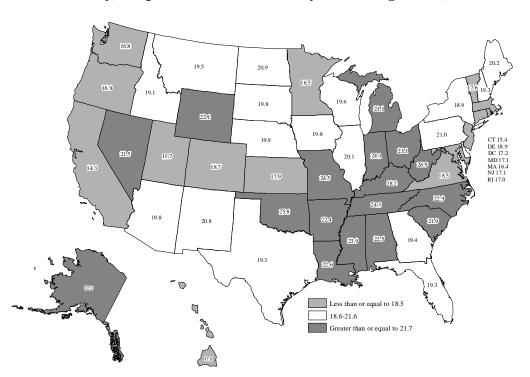
Note: *Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2007

National Statistics

The national median for respondents who currently smoke cigarettes was 19.8 percent. South Dakota had 19.8 percent of respondents who currently smoke cigarettes. Utah had the lowest percent of respondents who currently smoke cigarettes with 11.7 percent, while Kentucky had the highest percent of respondents who currently smoke cigarettes with 28.2 percent.

Figure 14
Nationally, Respondents Who Currently Smoke Cigarettes, 2007



Further Analysis

Following are data illustrating the percent of those who currently smoke cigarettes for various health behaviors and conditions. For example, 39.8 percent of respondents who are heavy drinkers currently smoke cigarettes, while 18.8 percent of respondents who are not heavy drinkers currently smoke cigarettes.

Table 1 Currently Smoke Cigarettes for Selected H		Currently Smoke Cigarettes for Selected Health Behaviors and Conditions, 2007									
Health Behavior or Condition	# Respondents	% Currently Smoke Cigarettes	95% CI								
Obese $(BMI = 30.0+)$	1,836	20.9	18.0-24.2								
Overweight (BMI = $25.0-29.9$)	2,557	18.0	16.0-20.2								
Recommended Weight (BMI = 18.5-24.9)	2,054	20.7	18.1-23.4								
No Leisure Time Physical Activity	1,866	26.1	23.1-29.4								
Leisure Time Physical Activity	4,986	18.0	16.4-19.6								
No Moderate Physical Activity	3,547	20.9	18.9-23.0								
Moderate Physical Activity	2,829	18.4	16.4-20.6								
No Vigorous Physical Activity	5,209	20.3	18.7-22.0								
Vigorous Physical Activity	1,341	17.7	15.0-20.9								
Less Than Five Servings of Fruits and Vegetables	5,367	21.8	20.2-23.5								
At Least Five Servings of Fruits and Vegetables	1,363	11.4	9.1-14.1								
Smokeless Tobacco Use	307	32.9	25.7-40.9								
No Smokeless Tobacco Use	6,262	18.8	17.4-20.4								
Diabetes	658	17.5	13.7-21.9								
No Diabetes	6,199	20.0	18.5-21.5								
Hypertension	2,343	16.5	14.6-18.5								
No Hypertension	4,509	21.0	19.2-22.8								
High Blood Cholesterol	2,233	16.5	14.5-18.8								
No High Blood Cholesterol	3,416	15.4	13.7-17.3								
No Health Insurance (18-64)	407	41.4	34.5-48.6								
Health Insurance (18-64)	4,024	20.7	19.0-22.6								
Employer Based Health Insurance Coverage (18-64)	2,581	17.8	15.9-19.9								
Private Health Insurance Plan (18-64)	556	11.9	8.8-15.9								
Medicare (18-64)	157	32.4	24.3-41.7								
Medicaid or Medical Assistance (18-64)	158	59.2	45.7-71.5								
The Military, CHAMPUS, TriCare, or the VA (18-64)	228	22.3	15.8-30.4								
The Indian Health Service (18-64)	266	54.0	44.9-62.9								
No Flu Shot (65+)	504	11.2	8.2-15.3								
Flu Shot (65+)	1,599	7.3	5.9-9.0								
No Pneumonia Shot (65+)	726	10.6	8.1-13.9								
Pneumonia Shot (65+)	1,297	6.6	5.2-8.3								
Doesn't Use Sun Block	4,142	22.0	20.1-24.0								
Uses Sun Block	1,610	14.3	12.1-17.0								
Doesn't Know Cervical Cancer - HPV Connection (Females)	799	20.0	16.7-23.8								
Knows Cervical Cancer - HPV Connection (Females)	3,013	19.5	17.3-21.9								
Drank Alcohol in Past 30 Days	3,513	21.4	19.6-23.4								
No Alcohol in Past 30 Days	3,302	17.8	15.7-20.1								
Binge Drinker	878	32.9	28.6-37.4								
Not a Binge Drinker	5,837	16.7	15.3-18.3								
Heavy Drinker	220	39.8	30.1-50.4								
Not a Heavy Drinker	6,424	18.8	17.3-20.3								
Previously Had a Heart Attack	460	21.7	16.8-27.6								
Never Had a Heart Attack	6,371	19.7	18.3-21.3								
Have Angina or Coronary Heart Disease	400	18.6	14.4-23.7								
Do Not Have Angina or Coronary Heart Disease	6,384	19.8	18.4-21.4								

Table 17 (continued) Currently Smoke Cigarettes for Selected Health Behaviors and Conditions, 2007									
Currently Smoke Cigarettes for Selected I	Tealth Deliaviors	% Currently	1007 						
Health Behavior or Condition	# Respondents	Smoke Cigarettes	95% CI						
Previously Had a Stroke	265	19.8	14.8-26.0						
Never Had a Stroke	6,580	19.8	18.4-21.3						
Current Asthma	501	21.8	17.0-27.6						
Former Asthma	172	21.0	13.9-30.3						
Never Had Asthma	6,143	19.6	18.1-21.2						
Arthritis	2,433	17.7	15.7-20.0						
No Arthritis	4,321	20.7	18.9-22.6						
Arthritis - Activities Limited	1,166	22.2	19.1-25.7						
No Arthritis - Activities Limited	5,567	19.5	17.9-21.1						
Fair or Poor Health Status	1,149	28.7	24.9-32.9						
Excellent, Very Good, or Good Health Status	5,690	18.5	17.0-20.1						
Physical Health Not Good for 30 Days of the Past 30	505	27.7	22.4-33.7						
Physical Health Not Good for 0-29 Days of the Past 30	6,201	19.5	18.1-21.1						
Mental Health Not Good for 20-30 Days of the Past 30	376	37.3	30.7-44.4						
Mental Health Not Good for 0-19 Days of the Past 30	6,363	18.9	17.5-20.4						
Usual Activities Unattainable for 10-30 Days of the Past 30	493	29.8	24.8-35.3						
Usual Activities Unattainable for 0-9 Days of the Past 30	6,302	19.3	17.8-20.8						
Dissatisfied / Very Dissatisfied with Life	267	39.9	31.0-49.5						
Satisfied / Very Satisfied with Life	6,323	18.8	17.4-20.4						
Physical, Mental, or Emotional Disability	1,564	22.1	19.4-25.1						
No Physical, Mental, or Emotional Disability	5,223	19.4	17.8-21.1						
Disability with Special Equipment Needed	615	14.8	11.6-18.6						
No Disability with Special Equipment Needed	6,177	20.2	18.8-21.8						
Two or More Hours of TV Watched Per Day	4,883	21.1	19.4-23.0						
Less Than Two Hours of TV Watched Per Day	1,583	16.2	13.7-19.0						
Never Been Tested for HIV (18-64)	3,442	19.8	17.9-21.7						
Been Tested for HIV (18-64)	997	30.5	26.4-34.9						
Diarrhea in Past 30 Days	962	27.0	22.9-31.4						
No Diarrhea in Past 30 Days	5,609	18.4	16.9-20.1						
Military Veteran	1,003	20.0	17.0-23.4						
Not a Military Veteran	5,852	19.8	18.2-21.4						

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2007

Respondents who tried to stop smoking for one day or longer because they were trying to quit smoking hit its peak in 2002 with 57.5 percent. Overall, the percent of respondents who tried to stop smoking for one day or longer because they were trying to quit smoking has been decreasing until 2006 and 2007 when it increased to 56.6 percent and 57.2 percent, respectively. Table 18 on the next page displays this.

_	Respondents Who Tried to Stop Smoking, Within the Past 12 Months, for One Day or Longer Because They Were Trying to Quit Smoking, 2000-2007						
Year	# of Respondents	Percent					
2007	1,292	57.2					
2006	1,250	56.6					
2005	1,314	53.3					
2004	1,217	53.9					
2003	1,139	57.3					
2002	970	57.5					
2001	1,079	55.2					
2000	839	48.2					

Table 10

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2000-2007

Table 19, below, displays the percent of current cigarette smokers by type of health insurance they have for the last eight years. The Indian Health Service again had the highest percent of current smokers from 2003-2007 with 53.8 percent. Medicaid or medical assistance with 50.6 percent and none with 43.3 percent rounded out the top three.

Table 19 Percent of Current Cigarette Smoking by Type of Health Insurance, Ages 18-64, 2000-2007										
Type of Health Insurance 2003-2007 2002-2006 2001-2005 2000-2004										
The Indian Health Service	53.8%	51.6%	52.2%	52.5%						
Medicaid or Medical Assistance	50.6%	50.5%	49.0%	51.2%						
None	43.3%	43.5%	43.6%	43.9%						
Medicare	38.8%	40.7%	38.7%	37.6%						
The Military, CHAMPUS, TriCare, or the VA	26.1%	28.4%	28.1%	28.1%						
Employer Based Coverage	19.1%	20.0%	20.8%	21.9%						
Private Health Insurance Plan	13.1%	14.2%	15.6%	15.4%						

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2000-2007

Figure 15, below, displays the percent of respondents who have been advised to quit smoking in the past 12 months by a health professional. From 2001 through 2006 the percent of respondents had been decreasing; however in 2007 there was an increase to 68.3 percent.

Figure 15
Percent of Respondents Who Have Been Advised by a Doctor, Nurse, or Other Health Professional to Quit Smoking in the Past 12 Months, 2001, 2003 and 2005-2007

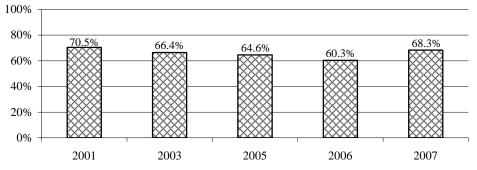
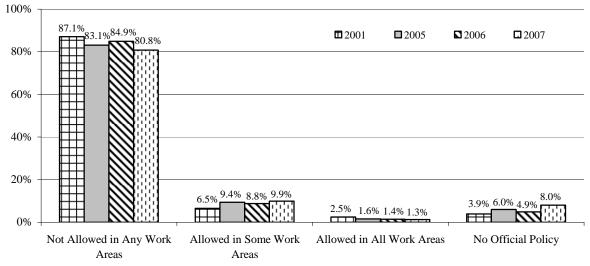


Figure 16, below, displays respondents' place of work official smoking policy for work areas. For each year the question was asked, the majority of respondents stated that smoking was not allowed in any work areas.

Figure 16
Respondent's Place of Work Official Smoking Policy for Work Areas,
2001 and 2005-2007



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2001 and 2005-2007

The series of Tables 20 through 20d, below, asks the opinion of the effects on second hand smoke of current smokers, former smokers, and respondents who have never smoked. Table 20, below, asks if second hand smoke causes lung cancer. The majority of respondents in 2007, 79.8 percent, and 2006, 82.7 percent, answered yes.

	Table 20										
Opinion or	Opinion on Effects of Second Hand Smoke: Causes Lung Cancer,										
	2005-2007										
		# Respondents	Yes	No	Don't Know/Not Sure						
Total	2007	6,568	79.8%	10.8%	9.4%						
	2006	6,420	82.7%	8.7%	8.6%						
	2005	6,694	79.9%	8.9%	11.2%						
G 4	2007	1,229	61.0%	24.3%	14.7%						
Current Smoker	2006	1,195	66.8%	21.1%	12.1%						
Silloker	2005	1,266	63.1%	20.3%	16.6%						
	2007	1,910	76.6%	12.1%	11.4%						
Former Smoker	2006	1,768	78.4%	10.3%	11.3%						
	2005	1,877	75.3%	9.9%	14.8%						
	2007	3,417	87.8%	5.4%	6.8%						
Never Smoked	2006	3,443	90.6%	3.4%	6.0%						
	2005	3,533	88.0%	4.4%	7.6%						

Table 20a, below, asks if second hand smoke causes heart disease. The majority of respondents for all three years answered yes.

Opinion on	Table 20a Opinion on Effects of Second Hand Smoke: Causes Heart Disease,										
		2005-2	2007								
		# Respondents	Yes	No	Don't Know/Not Sure						
Total	2007	6,562	69.5%	15.3%	15.3%						
	2006	6,419	69.0%	14.5%	16.6%						
	2005	6,693	67.0%	12.6%	20.4%						
C4	2007	1,226	53.6%	27.8%	18.7%						
Current Smoker	2006	1,195	58.3%	25.4%	16.2%						
Silloker	2005	1,266	55.8%	23.8%	20.3%						
	2007	1,907	69.8%	14.2%	16.1%						
Former Smoker	2006	1,768	68.7%	14.4%	16.9%						
	2005	1,878	66.9%	11.8%	21.3%						
	2007	3,417	75.0%	11.3%	13.7%						
Never Smoked	2006	3,442	73.1%	10.4%	16.5%						
	2005	3,531	71.1%	9.0%	19.9%						

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005-2007

Table 20b, below, asks if second hand smoke causes colon cancer. In 2005, almost half of the respondents, 46 percent, answered don't know/not sure, while in 2007 only 36.5 percent answered don't know/not sure.

Table 20b Opinion on Effects of Second Hand Smoke: Causes Colon Cancer, 2005-2007									
		# Respondents	Yes	No	Don't Know/Not Sure				
Total	2007	6,562	26.3%	37.2%	36.5%				
	2006	6,419	24.6%	37.1%	38.3%				
	2005	6,688	21.7%	32.2%	46.0%				
G .	2007	1,227	18.9%	50.8%	30.3%				
Current Smoker	2006	1,196	19.4%	50.0%	30.6%				
Smoker	2005	1,264	15.0%	46.7%	38.4%				
	2007	1,906	23.0%	38.2%	38.8%				
Former Smoker	2006	1,768	23.0%	36.6%	40.3%				
	2005	1,876	22.3%	28.8%	48.9%				
	2007	3,417	30.4%	32.0%	37.6%				
Never Smoked	2006	3,441	27.3%	32.5%	40.2%				
	2005	3,530	23.9%	28.6%	47.5%				

Table 20c, below, asks if second hand smoke causes health problems in children. The majority of respondents in 2006, 91.5 percent, and in 2007, 89.8 percent, answered yes.

Table 20c Opinion on Effects of Second Hand Smoke: Causes Health Problems in Children, 2005-2007										
		# Respondents	Yes	No	Don't Know/Not Sure					
Total	2007	6,560	89.8%	5.7%	4.4%					
	2006	6,417	91.5%	5.1%	3.4%					
	2005	6,690	91.5%	3.6%	4.9%					
G	2007	1,227	83.4%	10.7%	5.9%					
Current	2006	1,195	85.5%	9.9%	4.6%					
Smoker	2005	1,263	86.1%	7.5%	6.5%					
	2007	1,905	88.6%	6.0%	5.4%					
Former Smoker	2006	1,768	89.6%	5.8%	4.7%					
	2005	1,878	90.3%	3.4%	6.3%					
	2007	3,416	92.6%	3.8%	3.5%					
Never Smoked	2006	3,440	94.6%	3.0%	2.4%					
	2005	3,531	94.0%	2.3%	3.6%					

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2005-2007

Table 20d, below, asks if second hand smoke causes sudden infant death syndrome. The highest percent of respondents in 2005 was don't know/not sure with 47.4 percent, while in 2007 the highest percent of respondents said yes with 44.2 percent.

Table 20d Opinion on Effects of Second Hand Smoke: Causes Sudden Infant Death Syndrome, 2005-2007										
		# Respondents	Yes	No	Don't Know/Not Sure					
Total	2007	6,559	44.2%	21.0%	34.9%					
	2006	6,414	43.1%	19.1%	37.8%					
	2005	6,686	35.7%	16.9%	47.4%					
G	2007	1,227	39.6%	28.8%	31.5%					
Current	2006	1,194	37.1%	30.2%	32.7%					
Smoker	2005	1,260	31.1%	25.0%	43.9%					
	2007	1,904	37.6%	22.9%	39.5%					
Former Smoker	2006	1,767	37.0%	20.5%	42.5%					
	2005	1,877	31.4%	17.0%	51.6%					
Never Smoked	2007	3,416	48.7%	17.3%	34.0%					
	2006	3,439	48.1%	14.4%	37.5%					
	2005	3,531	39.4%	14.0%	46.6%					

SMOKELESS TOBACCO

Definition: Respondents who report that they use chewing tobacco or snuff every day or some days.

Prevalence of Smokeless Tobacco

- South Dakota 5.8%
- There is no nationwide median for smokeless tobacco

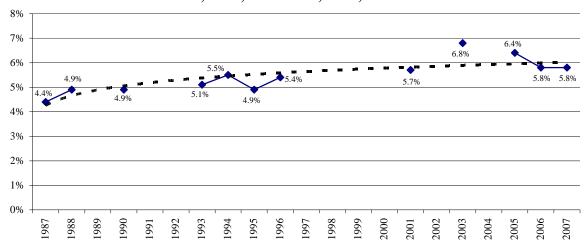
Healthy People 2010 Objective

There was no stated Healthy People 2010 Objective for smokeless tobacco use.

Trend Analysis

Overall, the percent of respondents who use smokeless tobacco has been increasing with a high of 6.8 percent in 2003 compared to a low of 4.4 percent in 1987. The percentage remained unchanged from 2006 to 2007 with 5.8 percent of respondents using smokeless tobacco.

Figure 17 Percent of Respondents Who Use Smokeless Tobacco, 1987-1988, 1990, 1993-1996, 2001, 2003 and 2005-2007



Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 1987-1988, 1990, 1993-1996, 2001, 2003 and 2005-2007

Demographics

Gender Males exhibit a significantly higher prevalence of smokeless tobacco use than females. This difference is evident throughout virtually every demographic group between the two as well.

Age Smokeless tobacco use generally decreases as age increases. This is especially true for males.

Race American Indian females exhibit a significantly higher prevalence of smokeless tobacco use than white females. This racial difference is not as evident with males.

Region The American Indian counties region demonstrates a very large percentage of

smokeless tobacco users, while the southeast, northeast, and west regions show a

very low percentage.

Household Income Smokeless tobacco use for females generally decreases as household income increases. This association is not evident with males.

Education

Overall there seems to be no association with smokeless tobacco use and education levels.

Employment Status

Those who are employed for wages, self-employed or unemployed show a very high prevalence of smokeless tobacco use, while those who are retired or unable to work show a very low prevalence.

Marital Status Those who are widowed exhibit a significantly lower prevalence of smokeless tobacco users than all other marital status categories.

			Tah	le 21						
	Respon	dents \			s Tob	acco, 2007				
	_	Total			Male	,		Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI	
Total	6,581	5.8	(5.0-6.7)	2,678	11.0	(9.4-12.7)	3,903	0.9	(0.6-1.5)	
Age										
18-24	225	8.2	(5.1-12.8)	113	14.0	(8.3-22.7)	112	2.5	(0.9-6.8)	
25-34	719	9.1	(6.8-12.1)	280	16.8	(12.4-22.4)	439	1.1	(0.4-2.7)	
35-44	882	6.9	(5.2-9.0)	401	12.3	(9.2-16.3)	481	1.2	(0.4-3.4)	
45-54	1,359	5.2	(3.9-6.9)	565	10.0	(7.4-13.3)	794	0.6	(0.3-1.5)	
55-64	1,306	4.1	(3.0-5.7)	552	7.8	(5.6-10.8)	754	0.2	(0.1-0.8)	
65-74	1,018	3.3	(2.2-4.9)	404	6.7	(4.4-10.1)	614	0.4	(0.1-1.3)	
75+	1,011	1.4	(0.6-3.2)	352	3.3	(1.4-7.8)	659	0.2	(0.0-1.4)	
Race										
White	5,789	5.4	(4.6-6.3)	2,367	10.5	(8.9-12.2)	3,422	0.6	(0.3-1.3)	
American Indian	548	10.8	(6.3-17.7)	206	15.5	(7.7-28.9)	342	6.4	(3.4-11.9)	
Region										
Southeast	1,455	4.5	(3.3-6.2)	606	8.6	(6.3-11.8)	849	0.4	(0.1-1.5)	
Northeast	1,438	5.5	(4.0-7.4)	603	10.0	(7.3-13.5)	835	0.7	(0.3-2.0)	
Central	1,371	7.5	(5.5-10.2)	549	14.5	(10.5-19.7)	822	1.4	(0.6-3.2)	
West	1,484	6.1	(4.5-8.2)	583	12.8	(9.6-16.9)	901	0.8	(0.1-3.8)	
American Indian Counties	833	12.4	(8.9-16.8)	337	19.3	(13.4-26.9)	496	5.5	(2.9-10.4)	
Household Income										
Less than \$10,000	297	4.8	(2.0-11.4)	*	*	*	*	*	*	
\$10,000-\$14,999	354	3.2	(1.5-6.7)	115	3.5	(1.5-8.1)	239	3.0	(1.0-9.0)	
\$15,000-\$19,999	479	5.6	(2.5-12.0)	168	11.1	(4.5-25.1)	311	1.7	(0.5-5.5)	
\$20,000-\$24,999	629	6.6	(4.1-10.5)	215	15.4	(9.5-23.9)	414	0.7	(0.2-3.7)	
\$25,000-\$34,999	852	5.9	(3.8-9.1)	372	11.0	(7.1-16.7)	480	0.2	(0.0-0.7)	
\$35,000-\$49,999	1,118	5.9	(4.3-8.0)	506	10.1	(7.5-13.6)	612	1.6	(0.5-5.0)	
\$50,000-\$74,999	1,033	6.9	(5.1-9.4)	469	13.1	(9.6-17.7)	564	0.3	(0.1-1.4)	
\$75,000+	1,009	5.6	(4.1-7.5)	515	9.6	(7.1-12.8)	494	0.1	(0.0-0.9)	
Education										
8 th Grade or Less	245	2.0	(0.6-6.6)	129	3.2	(0.9-10.2)	116	0.0	-	
Some High School	361	6.8	(3.3-13.7)	139	13.2	(6.1-26.2)	222	0.8	(0.2-2.7)	
High School or G.E.D.	2,172	7.4	(5.9-9.2)	951	12.7	(10.1-15.9)	1,221	1.8	(0.9-3.7)	
Some Post-High School	1,845	6.3	(4.8-8.3)	651	13.8	(10.5-18.1)	1,194	0.7	(0.3-1.5)	
College Graduate	1,947	3.8	(2.8-5.1)	806	7.3	(5.4-9.8)	1,141	0.3	(0.1-1.2)	

Table 21 (continued)									
Respondents Who Use Smokeless Tobacco, 2007									
	Total			Male			Female		
	# Resp.	%	95% CI	# Resp.	%	95% CI	# Resp.	%	95% CI
Employment Status									
Employed for Wages	3,064	6.7	(5.6-8.0)	1,220	12.9	(10.7-15.4)	1,844	0.7	(0.4-1.3)
Self-employed	919	8.7	(6.5-11.4)	611	12.0	(9.0-15.7)	308	0.2	(0.0-1.3)
Unemployed	153	10.7	(4.0-25.6)	*	*	*	*	*	*
Homemaker	425	2.2	(0.6-8.0)	*	*	*	*	*	*
Retired	1,599	2.2	(1.4-3.4)	606	4.4	(2.7-7.1)	993	0.3	(0.1-1.0)
Unable to work	317	2.1	(1.1-4.0)	127	3.8	(1.8-7.9)	190	0.7	(0.2-2.4)
Marital Status									
Married/Unmarried Couple	3,953	5.8	(4.9-6.9)	1,731	11.0	(9.3-13.0)	2,222	0.7	(0.3-1.6)
Divorced/Separated	892	6.5	(4.6-9.0)	377	11.2	(7.7-16.0)	515	2.5	(1.1-5.2)
Widowed	1,017	1.8	(1.0-3.2)	176	8.7	(4.7-15.3)	841	0.3	(0.1-1.2)
Never Married	703	6.8	(4.5-10.3)	389	10.3	(6.6-15.8)	314	1.5	(0.6-3.9)

Note: *Results based on sample sizes less than 100 have been suppressed.

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2007

Further Analysis

Following are data illustrating the percent of those who currently use smokeless tobacco for various health behaviors and conditions. For example, 14.5 percent of respondents who are binge drinkers use smokeless tobacco, while 3.9 percent of respondents who are not binge drinkers use smokeless tobacco.

Table 22 Smokeless Tobacco Use for Selected Health Behaviors and Conditions, 2007					
Health Behavior or Condition	# Respondents	% Use Smokeless Tobacco	95% CI		
Obese $(BMI = 30.0+)$	1,765	6.4	5.0-8.1		
Overweight (BMI = 25.0-29.9)	2,465	6.9	5.6-8.5		
Recommended Weight (BMI = 18.5-24.9)	1,967	4.7	3.4-6.6		
No Leisure Time Physical Activity	1,769	6.0	4.5-7.8		
Leisure Time Physical Activity	4,807	5.8	4.9-6.8		
No Moderate Physical Activity	3,500	4.9	4.0-5.9		
Moderate Physical Activity	2,785	6.9	5.6-8.5		
No Vigorous Physical Activity	5,130	5.1	4.3-6.0		
Vigorous Physical Activity	1,325	7.4	5.6-9.8		
Less Than Five Servings of Fruits and Vegetables	5,234	6.7	5.7-7.8		
At Least Five Servings of Fruits and Vegetables	1,343	2.1	1.3-3.3		
Current Smoker	1,233	9.7	7.3-12.8		
Former Smoker	1,913	6.0	4.6-7.6		
Never Smoked	3,423	4.4	3.5-5.4		
Diabetes	639	2.5	1.3-4.7		
No Diabetes	5,941	6.1	5.2-7.0		
Hypertension	2,255	4.6	3.5-6.1		
No Hypertension	4,320	6.2	5.2-7.4		
High Blood Cholesterol	2,166	4.7	3.5-6.3		
No High Blood Cholesterol	3,284	4.7	3.8-5.8		
No Health Insurance (18-64)	406	8.1	4.6-14.0		
Health Insurance (18-64)	4,032	6.5	5.5-7.6		

Table 22 (continued) Smokeless Tobacco Use for Selected Health Behaviors and Conditions, 2007					
		% Use Smokeless			
Health Behavior or Condition	# Respondents	Tobacco	95% CI		
Employer Based Health Insurance Coverage (18-64)	2,587	6.3	5.2-7.6		
Private Health Insurance Plan (18-64)	558	6.8	4.4-10.3		
Medicare (18-64)	157	5.2	2.3-11.7		
Medicaid or Medical Assistance (18-64)	157	3.5	1.2-9.5		
The Military, CHAMPUS, TriCare, or the VA (18-64)	229	4.3	1.6-11.5		
The Indian Health Service (18-64)	266	14.8	7.7-26.5		
No Flu Shot (65+)	478	1.6	0.8-3.4		
Flu Shot (65+)	1,544	2.5	1.6-3.9		
No Pneumonia Shot (65+)	693	2.9	1.5-5.7		
Pneumonia Shot (65+)	1,250	2.1	1.4-3.2		
Doesn't Use Sun Block	4,153	7.5	6.4-8.8		
Uses Sun Block	1,611	2.5	1.7-3.8		
Doesn't Know Cervical Cancer - HPV Connection (Females)	800	0.9	0.3-2.4		
Knows Cervical Cancer - HPV Connection (Females)	3,017	0.9	0.5-1.6		
Drank Alcohol in Past 30 Days	3,370	7.9	6.7-9.3		
No Alcohol in Past 30 Days	3,186	3.1	2.3-4.2		
Binge Drinker	840	14.5	11.5-18.2		
Not a Binge Drinker	5,641	3.9	3.2-4.6		
Heavy Drinker	210	10.1	5.4-18.0		
Not a Heavy Drinker	6,203	5.4	4.7-6.3		
Previously Had a Heart Attack	452	3.6	2.0-6.5		
Never Had a Heart Attack	6,103	5.9	5.1-6.9		
Have Angina or Coronary Heart Disease	389	3.8	2.0-6.8		
Do Not Have Angina or Coronary Heart Disease	6,122	5.9	5.1-6.9		
Previously Had a Stroke	260	4.1	1.9-8.6		
Never Had a Stroke	6,309	5.9	5.1-6.8		
	482	7.6			
Current Asthma Former Asthma	170	6.6	4.4-13.0 2.8-14.7		
Never Had Asthma	5,891	5.6	4.8-6.5		
Arthritis	2,376	4.6	3.4-6.2		
No Arthritis	4,184	6.3	5.3-7.4		
Arthritis - Activities Limited	1,147	2.6	1.7-4.1		
No Arthritis - Activities Limited	5,397	6.2	5.3-7.2		
Fair or Poor Health Status	1,110	4.5	3.0-6.9		
Excellent, Very Good, or Good Health Status	5,453	6.0	5.1-7.0		
Physical Health Not Good for 30 Days of the Past 30	486	4.7	2.1-10.1		
Physical Health Not Good for 0-29 Days of the Past 30	5,958	5.9	5.1-6.8		
Mental Health Not Good for 20-30 Days of the Past 30	366	4.0	2.1-7.4		
Mental Health Not Good for 0-19 Days of the Past 30	6,101	5.8	5.0-6.8		
Usual Activities Unattainable for 10-30 Days of the Past 30	469	3.1	1.5-6.2		
Usual Activities Unattainable for 0-9 Days of the Past 30	6,054	6.0	5.2-7.0		
Dissatisfied / Very Dissatisfied with Life	265	3.3	1.3-7.8		
Satisfied / Very Satisfied with Life	6,274	5.9	5.1-6.9		
Physical, Mental, or Emotional Disability	1,537	2.9	1.9-4.3		
No Physical, Mental, or Emotional Disability	5,031	6.5	5.6-7.6		
Disability with Special Equipment Needed	601	3.4	1.7-6.8		
No Disability with Special Equipment Needed	5,977	6.0	5.1-6.9		
Two or More Hours of TV Watched Per Day	4,889	5.6	4.7-6.6		
Less Than Two Hours of TV Watched Per Day	1,588	6.5	4.9-8.7		

Table 22 (continued) Smokeless Tobacco Use for Selected Health Behaviors and Conditions, 2007					
Health Behavior or Condition	# Respondents	% Use Smokeless Tobacco	95% CI		
Never Been Tested for HIV (18-64)	3,410	6.2	5.2-7.5		
Been Tested for HIV (18-64)	989	8.3	6.2-10.9		
Diarrhea in Past 30 Days	962	6.0	4.1-8.7		
No Diarrhea in Past 30 Days	5,579	5.8	4.9-6.7		
Military Veteran	966	8.3	6.0-11.3		
Not a Military Veteran	5,612	5.4	4.6-6.4		

Source: The Behavioral Risk Factor Surveillance System, South Dakota Department of Health, 2007

Figure 18, below, displays the percent of respondents who were advised by a doctor, nurse, or other health professional to stop using smokeless tobacco. There was a large increase from 2006 to 2007 in the percent of respondents who were advised to quit using smokeless tobacco by a doctor, nurse, or other health professional.

Figure 18
Percent of Respondents Advised to Quit Using Smokeless Tobacco by a Doctor, Nurse, or Other Health Professional, 2005-2007

